

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/12096

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01M 6/14, 6/16, 6/24
 US CL : 429/326, 330-335, 337, 338, 347

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 429/326, 330-335, 337, 338, 347

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-------------------------|
| Y | US 6,346,351 B1 (YDE-ANDERSEN et al) 12 February 2002 (12.02.2002), abstract and col. 3, line 39-col. 4, line 28. | 1-12 |
| Y | US 5,578,395 A (YOSHIMURA et al) 26 November 1996 (26.11.1996), Figure 2 and col. 3, lines 64-66. | 3, 6, 7-12 |
| Y | US 5,571,635 A (SHU et al) 05 November 1996 (05.11.1996), col. 9, lines 10-22 and Figure 7. | 2, 5, 7-12 |
| Y | US 5,079,109 A (TAKAMI et al) 07 January 1992 (07.01.1992), abstract and col. 5, lines 57-col. 6, lines 3. | 1, 3, 4, 6-9, 11, 12 |
| Y | US 6,284,412 B1 (MINAKATA et al) 04 September 2001 (04.09.2001), col. 27, lines 17-21 and col. 32, lines 19-24. | 1, 2, 4, 5, 7-9, 11, 12 |
| Y | US 6,465,134 B1 (SHIBUYA et al) 15 October 2002 (15.10.2002), abstract, Tables 1-2 and claim 1. | 1, 2, 4, 5, 7-12 |

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|---|--|--|--------------------------|
| <input type="checkbox"/> | Further documents are listed in the continuation of Box C. | <input type="checkbox"/> | See patent family annex. |
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| | "&" | document member of the same patent family | |

Date of the actual completion of the international search

28 July 2003 (28.07.2003)

Date of mailing of the international search report

19 AUG 2003

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